CLAIMS

1. A cathode material for a lithium battery, said cathode material comprising, on a weight basis:

a first component which is an oxide or a sulfide of a metal, said first component being capable of intercalating lithium, said first component being present in an amount which is greater than 20%, and up to 80%;

a second component which comprises carbon, said second component being an electroactive catalyst which is capable of reducing oxygen, said second component being present in an amount of 10-80%; and

a binder which is present in an amount of 5-40%.

2. The cathode material of claim 1, wherein said first component comprises at least 30% of said cathode.

3. The cathode material of claim 1, wherein said second component is present in an amount of at least 10%, and no more than 30%.

4. The cathode material of claim 1, wherein said first component is selected from the group consisting of: MnO_2, CoO_2, NiO_2, $LiCoO_2$, $LiMn_2O_4$, $LiNiO_2$, MoS_2, TiS_2, and combinations thereof.

5. The cathode material of claim 1, wherein said second component comprises high surface area carbon.

6. The cathode material of claim 5, wherein said high surface area carbon comprises carbon black.

7. The cathode material of claim 1, wherein said binder comprises a fluoropolymer.

8. The cathode material of claim 1, wherein said first component comprises MnO_2.

9. The cathode material of claim 1, wherein said first component comprises 35-45% MnO_2, said second component comprises 22-28% carbon, and said binder comprises 30-40% of a fluoropolymer.

10. The cathode material of claim 1, wherein said first component comprises 41% MnO_2, said second component comprises 25% carbon black, and said third component comprises 34% of a fluoropolymer.

11. The cathode material of claim 1, wherein said first component comprises 40% MnO_2, said second component comprises 50% carbon black, and said third component comprises 10% polytetrafluoroethylene.

12. The cathode material of claim 1, wherein said first component is present in an amount of 20-60%, said second component is present in an amount of 30-70%, and said binder is present in an amount of 5-15%.

13. A lithium battery which includes the cathode material of claim 1.

14. A cathode material for a metal-air battery, said cathode material comprising, on a weight basis:

a first component which is capable of intercalating a metal, said first component being present in an amount which is greater than 20%, and up to 80% of said material;

a second component which comprises an electroactive catalyst which is capable of catalyzing the reduction of oxygen, said second component comprises 10-80% of said material; and

a binder comprising 5-40% of said material.